WHAT IS CLAIMED IS:
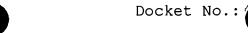
1   1.   A method comprising:

2   determining at least one queue parameter for a

3   process running on a system; and

4   configuring one or more queues on a storage device

5   in accordance with the at least one queue parameter.

1   2.   The method of claim 1 wherein said configuring one or

2   more queues includes specifying a next read address indicative

3   of the memory location within the storage device from which

4   the next queue object requested from the queue is to be read.

1   3.   The method of claim 1 wherein said configuring one or

2   more queues includes specifying a next write address

3   indicative of the memory location within the storage device to

4   which the next queue object provided to the queue is to be

5   written.

1   4.   The method of claim 1 wherein said configuring one or

2   more queues includes providing a queue status flag, which is

3   indicative of an operational condition of the queue.

1   5.   The method of claim 1 wherein said configuring one or

2   more queues includes specifying a starting address for the

3   queue.

1   6.   The method of claim 1 wherein the at least one queue

2   parameter includes a queue depth parameter and said

3   configuring one or more queues includes configuring the queue

4   in accordance with the queue depth parameter.
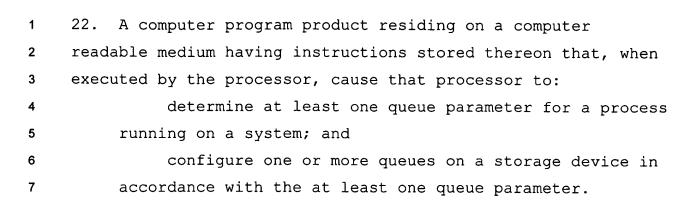
1   7.   The method of claim 1 wherein the at least one queue

2   parameter includes a queue entry size parameter and said

3   configuring one or more queues includes configuring the queue

4   in accordance with the queue entry size parameter.

1   8.   A system comprising:

2   a host processor configured to determine at least

3   one queue parameter for a process running on said system;

4   a storage device; and

5   a queue management process configured to configure

6   one or more queues on said storage device in accordance

7   with said at least one queue parameter.

1   9.   The system of claim 8 wherein said queue management

2   process includes a read pointer process for each queue

3   configured by said queue management process, wherein said read

4   pointer process is configured to specify a next read address

5   indicative of the memory location within said storage device

6   from which the next queue object requested from said queue is

7   to be read.

1   10. The system of claim 8 wherein said queue management

2   process includes a write pointer process for each queue

3   configured by said queue management process, wherein said

4   write pointer process is configured to specify a next write

5   address indicative of the memory location within said storage

6   device to which the next queue object provided to said queue

7   is to be written.

1   11. The system of claim 8 further comprising at least one

2   slave processor.

1   12. The system of claim 11 wherein said slave processor

2   comprises a programmable state machine.

1   13. The system of claim 11 further comprising a data bus for

2   connecting said host and slave processors, wherein said data

3   bus transfers queue objects between said processors.

1   14. The system of claim 11 further comprising a flag bus for

2   connecting said host and slave processors.

1   15. The system of claim 14 wherein said queue management

2   process includes a queue status monitoring process for each

3   queue configured by said queue management process, wherein

4   said queue status monitoring process provides a queue status

5   flag, which is indicative of an operational condition of said

6   queue, on said flag bus.

1   16. The system of claim 15 wherein said queue status flag is

2   configured to indicate at least one of:

3   an empty queue condition;

4   a nearly empty queue condition;

5   a nearly full queue condition; and

6   a full queue condition.

1   17. The system of claim 8 wherein said queue management

2   process includes a queue base address process for each queue

3   configured by said queue management process, wherein said

4   queue base address process specifies a starting address for

5   said queue.

1   18. The system of claim 8 wherein said at least one queue

2   parameter includes a queue depth parameter and said queue

3   management process includes a queue depth specification

4   process for each queue configured by said queue management

5   process, wherein said queue depth specification process

6   configures said queue in accordance with said queue depth

7   parameter.

1   19.   The system of claim 8 wherein said at least one queue

2   parameter includes a queue entry size parameter and said queue

3   management process includes a queue entry size specification

4   process for each queue configured by said queue management

5   process, wherein said queue entry size specification process

6   configures said queue in accordance with said queue entry size

7   parameter.

1   20.   The system of claim 8 wherein said storage device

2   comprises an SRAM storage device.

1   21.   The system of claim 8 wherein said one or more queues

2   temporarily store queue objects and said queue objects include

3   at least one of:

4   a data packet; and

5   a system command.

1   22. A computer program product residing on a computer

2   readable medium having instructions stored thereon that, when

3   executed by the processor, cause that processor to:

4   determine at least one queue parameter for a process

5   running on a system; and

6   configure one or more queues on a storage device in

7   accordance with the at least one queue parameter.

1   23. The computer program product of claim 22 wherein said

2   computer readable medium comprises a read-only memory.

1   24. The computer program product of claim 22 wherein said

2   computer readable medium comprises a hard disk drive.

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1 25. A queue management process for configuring one or more
2 queues, comprising:
3   a queue base address process for specifying a
4 starting address for each of said one or more queues
5 required by a process running on a system; and
6   a queue depth specification process for configuring
7 each said queue in accordance with a queue depth
8 parameter provided by said process running on said
9 system.

1 26. The queue management process of claim 25 further
2 comprising:
3   a queue entry size specification process for
4 configuring each said queue in accordance with a queue
5 entry size parameter provided by said process running on
6 said system.

1   27.   A queue management process for configuring one or more

2   queues, comprising:

3   a queue base address process for specifying a

4   starting address for each of said one or more queues

5   required by a process running on a system; and

6   a queue entry size specification process for

7   configuring each said queue in accordance with a queue

8   entry size parameter provided by said process running on

9   said system.

1   28.   The queue management process of claim 27 further

2   comprising:

3   a queue depth specification process for configuring

4   each said queue in accordance with a queue depth

5   parameter provided by said process running on said

6   system.

1   29. A queue management process for configuring one or more

2   queues, comprising:

3   a queue base address process for specifying a

4   starting address for each of said one or more queues

5   required by a process running on a system; and

6   a queue status monitoring process for providing, for

7   each said queue, a queue status flag that is indicative

8   of the operational condition of said queue.

1   30. The queue management process of claim 29 wherein said

2   queue status flag is configured to indicate at least one of:

3   an empty queue condition;

4   a nearly empty queue condition;

5   a nearly full queue condition; and

6   a full queue condition.